

American DJ®

Penta Beam



User Instructions

Penta Beam™

General Introduction

Unpacking: Thank you for purchasing the Penta Beam™ by American DJ®. Every Penta Beam™ has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your unit for any damage and be sure all equipment necessary to operate the unit has arrived intact. In the event damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Please do not return the unit to your dealer without first contacting customer support.

Introduction: The Penta Beam™ is a unique six channel, DMX intelligent red laser effect that creates several different patterns. The unit uses five lasers to project several patterns over a wide area. This unit can be used as a stand alone, sound-active unit or in a Master/Slave configuration. The unit can also be controlled via DMX controller. The unit's sound sensitivity may be adjusted by a sensitivity knob on the rear of the unit. When used as a stand alone unit or when used in multiples linked in a master/slave configuration the optional MINI/C controller may be used. The optional controller will control the blackout function. *For best results use fog or special effects smoke to enhance the beams projections.*

Customer Support: American DJ® provides a toll free customer support line, to provide set up help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at www.americandj.com for any comments or suggestions. For service related issue please contact American DJ®. Service Hours are Monday through Friday 9:00 a.m. to 5:00 p.m. Pacific Standard Time.

Voice: (800) 322-6337

Fax: (323) 582-2610

E-mail: support@americandj.com

To purchase parts online visit <http://parts.americandj.com>

Caution! There are no user serviceable parts inside this unit. Do not attempt any repairs yourself, doing so will void your manufactures warranty. In the unlikely event your unit may require service please contact American DJ customer support.

Please recycle the shipping carton when ever possible.

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Please carefully read and understand the instructions in this manual thoroughly before attempting to operate this unit. These instructions contain important safety information regarding the use and maintenance of this unit. Please keep this manual with the unit, for future reference.

CAUTION IMPORTANT! When installing this projector, make sure that it is mounted in a manner that prevents the audience from looking directly into the beam, and the beam from striking the audience.

Penta Beam™

Features

- 4.9mW Red Laser Diode
- 5 Separate Lasers
- Sound Active with Internal Microphone
- DMX-512 Protocol Compatible (Uses Six DMX Channels, One Channel for each Laser, and one special function channel)
- Master/Slave Operation
- 5 Patterns
- Volume Sensitivity Knob
- Optional MINI/C Controller (Not Included)

Penta Beam™

Warranty Registration

The Penta Beam™ carries a 90 day limited warranty. Please fill out the enclosed warranty card to validate your purchase. All returned service items whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper included in the shipping carton. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. You may obtain a R.A. number by contacting our customer support team on our toll free customer support number. All packages returned to the service department not displaying a R.A. number on the outside of the package will be returned to the shipper.



Safety Issues: This unit may pop the breaker if the maximum allotted load of 2 amps is reached.

- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture.
- Do not spill water or other liquids into or on to your unit.
- Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short. Do not attempt to operate this unit if the power cord has been frayed or broken.
- Disconnect from main power before making any type of connection.
- Do not remove the cover under any conditions. There are no user serviceable parts inside.
- Always be sure to mount this unit in an area that will allow proper ventilation. Allow about 6" (15cm) between this device and a wall.
- Do not attempt to operate this unit, if it becomes damaged.
- This unit is intended for indoor use only, use of this product outdoors voids all warranties.
- During long periods of non-use, disconnect the unit's main power.
- Always mount this unit in safe and stable matter.
- Power cords should be routed so they are not likely to be walked on, pinched by items placed upon or against them.
- Cleaning -The fixture should be cleaned only as recommended by the manufacturer. See page 6 for cleaning details.
- Heat -The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- The fixture should be serviced by qualified service personnel when:
 - A. The power-supply cord or the plug has been damaged.
 - B. Objects have fallen on, or liquid has been spilled into the unit.
 - C. The unit has been exposed to rain or water.
 - D. The unit does not appear to operate normally or exhibits a marked change in performance.

NON-INTERLOCKED HOUSING WARNING

The Penta Beam™ contains high power laser devices internally. **Do not** open the laser housing, due to the potential exposure to unsafe levels of laser radiation. The laser power levels, if the unit is opened, can cause instant blindness, skin burns and fires.

**STOP AND READ ALL LASER SAFETY DATA
OPERATION INSTRUCTIONS AND LASER SAFETY**

The light source emitted from this product can potentially cause eye injury if not set up and used properly. The light source emitted from a laser is very different from any other light sources with which you may be aware of. Laser light is thousands of times more concentrated than any light from any other kind of light source. This concentration of light can cause instant eye injuries, primarily by burning the retina (the back of your eyeball containing cells that are sensitive to light). Even if you cannot feel “heat” from a laser beam, it can still potentially injure or blind you or your audience. Even very small amounts of laser beam light are potentially hazardous even at long distances. Laser eye injuries can be sustained faster than you can blink.

Do not think that because this laser splits the laser beam into hundreds of beams and that the laser beam is scanned out in high speed, that an individual laser beam is safe for eye exposure. This laser uses dozens of milliwatts of laser power (Class 3B levels internally) before it splits into multiple beams (Class 3R levels). Many of the individual beams are potentially hazardous to the eyes.

Do not think that because the laser light is moving, it is safe. This is not true. Nor, do the laser beams always move. Since eye injuries can occur instantly, it is critical to prevent even the smallest possibility of any direct eye exposure. In the laser safety regulation, it is not legal to aim Class 3R lasers in areas which people can get exposed. This is true even if it is aimed below people’s faces, such as on a dance floor.

Do not operate the laser without first reading and understanding all safety and technical data in this manual.

Always set up and install all laser effects so that all laser light is at least 3 meters (9.8 feet) above the floor on which people can stand.

After setting up, and before public use, test laser to ensure proper function. Do not use if any defect is detected. Do not use if laser emits only one or two laser beams rather than dozens/hundreds, as this could indicate damage to the diffraction grating optic, and could allow emission of higher laser levels above Class 3R.

Do not point lasers at people or animals. Never look into the laser aperture or laser beams.

Do not point lasers in areas in which people can potentially get exposed, such as uncontrolled balconies, etc.

Do not point lasers at highly reflective surfaces, such as windows, mirrors and shiny metal. Even laser reflections can be hazardous.

Never point a laser at aircraft, this is a federal offense.

Never point un-terminated laser beams into the sky.

Do not expose the output optic (aperture) to cleaning chemicals.

Do not use laser if the laser appears to be emitting only one or two beams.

Do not use the laser if the housing is damaged, the housing is open, or if the optics appear damaged in any way.

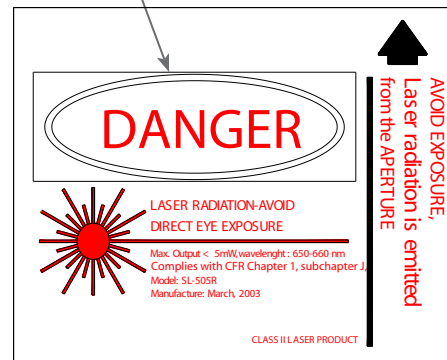
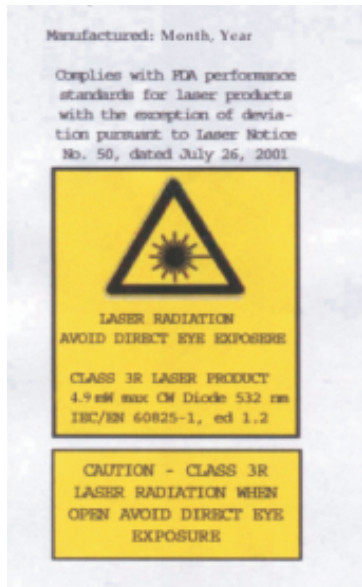
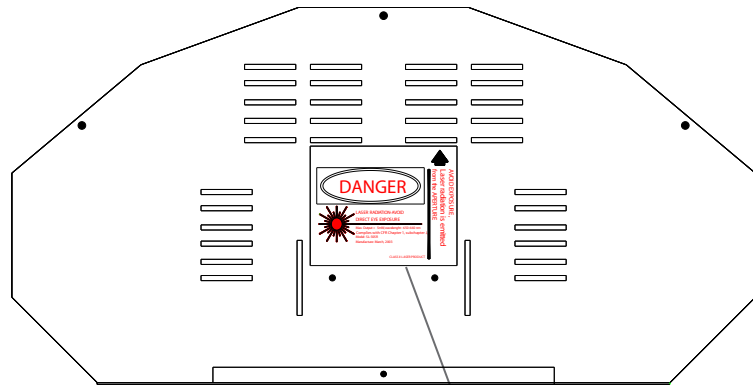
Never open the laser housing. The high laser power levels inside of the protective housing can start fires, burn skin and will cause instant eye injury.

Never leave this device running unattended.

The operation of a class 3R laser show is only allowed if the show is controlled by a skilled and well- trained operator, familiar with the data included in this manual.

The legal requirements for using laser entertainment products vary from country to country. The user is responsible for the legal requirements at the location/country of use.

Always use proper lighting safety cables when hanging lights and effects overhead.



Laser Aperture

**CAUTION - CLASS 3R
LASER RADIATION WHEN OPEN
AVOID DIRECT EYE EXPOSURE**

CAUTION IMPORTANT! When installing this projector, make sure that it is mounted in a manner that prevents the audience from looking directly into the beam, and the beam from striking the audience.

Power Supply: Before plugging your unit in, be sure the source voltage in your area matches the required voltage for your American DJ® Penta Beam.™ The American DJ® Penta Beam™ is 120v only. Because line voltage may vary from venue to venue, you should be sure your unit voltages matches the wall outlet voltage before attempting to operate your fixture.

DMX-512: DMX is short for Digital Multiplex. This is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA "IN" and DATA "OUT" XLR terminals located on all DMX fixtures (most controllers only have a DATA "OUT" terminal).

DMX Linking: DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned a DMX address of 1 may be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

Dipswitches in DMX mode: This unit uses dipswitches to assign a DMX address. Each dipswitch represents a binary value.

- Dipswitch 1 address equals 1
- Dipswitch 2 address equals 2
- Dipswitch 3 address equals 4
- Dipswitch 4 address equals 8
- Dipswitch 5 address equals 16
- Dipswitch 6 address equals 32
- Dipswitch 7 address equals 64
- Dipswitch 8 address equals 128
- Dipswitch 9 address equals 256

Dipswitch 10 - Some units omit dipswitch 10. When a unit does include dipswitch #10, it is usually used for special functions such as

sound activation.

Assigning DMX Address: Each dipswitch has a preset value. A specific DMX address is set by combining the dipswitches that sum your desired value. For example: To achieve a DMX address of 7, combine dipswitches 1, 2, and 3. Since dipswitch 1 has a value of 1, dipswitch 2 has a value of 2, and dipswitch 3 has a value of 4, the combination of the three create a DMX value of 7. (See example below).

Set DMX address 1:

Dip-switches # 1 = 1

Set DMX address 7:

Dip-switches # 1 = 1
2 = 2
3 = 4
= 7

Data Cable (DMX Cable) Requirements (For DMX and Master/Slave Operation): The Penta Beam™ can be controlled via DMX-512 protocol. The Penta Beam™ is a one channel DMX unit. The DMX address is set on the side panel of the Penta Beam™. Your unit and your DMX controller require a standard 3-pin XLR connector for data input and data output (Figure 1). If you are making your own cables, be sure to use standard two conductor shielded cable (This cable may be purchased at almost all pro sound and lighting stores). Your cables should be made with a male and female XLR connector on either end of the cable. Also remember that DMX cable must be daisy chained and can not be split.

Notice: Be sure to follow figures two and three when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit and erratic behavior.

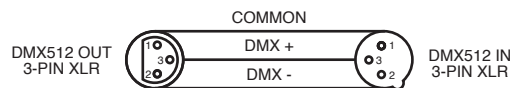


Figure 2

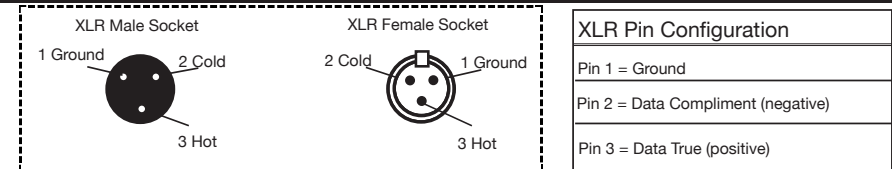


Figure 3

Special Note: Line Termination. When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 90-120 ohm 1/4 watt resistor which is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This unit is inserted in the female XLR socket of the last unit in your daisy chain to terminate the line. Using a cable terminator (ADJ part number Z-DMX/T) will decrease the possibilities of erratic behavior.

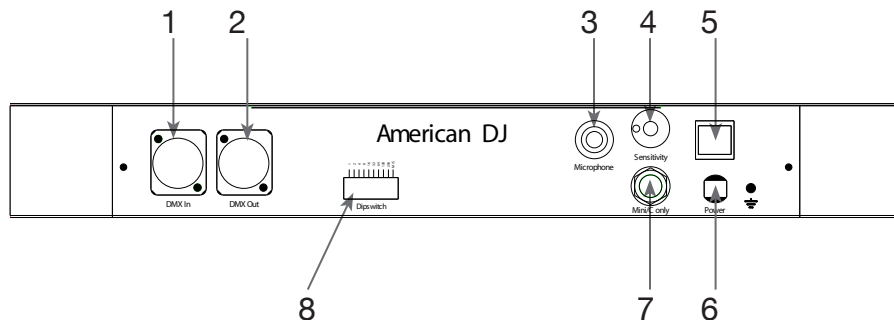


Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal. (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX+) of the last fixture.

Figure 4

5-Pin XLR DMX Connectors. Some manufactures use 5-pin XLR connectors for DATA transmission in place of 3-pin. 5-pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors in to a 3-pin line a cable adaptor must be used, these adaptors are readily available at most electric stores. The chart below details a proper cable conversion.

3-Pin XLR to 5-Pin XLR Conversion		
Conductor	3-Pin XLR Female (Out)	5-Pin XLR Male (In)
Ground/Shield	Pin 1	Pin 1
Data Compliment (- signal)	Pin 2	Pin 2
Data True (+ signal)	Pin 3	Pin 3
Not Used		Pin 4 - Do Not Use
Not Used		Pin 5 - Do Not Use



1. XLR Input Jack - This male input jack is used to accept an incoming DMX signal or Master/Slave signal.

2. XLR Output Jack - This female output jack is used to transmit the incoming DMX signal to another DMX fixture, or transmit a Master/Slave signal to the next Penta Beam™ in the chain. For best results in DMX or Master/Slave mode terminate this jack if it is the last unit in the chain. See “Terminator” on page 10.

3. Microphone - This microphone receives external low frequencies to trigger the unit in Sound-Active mode. This microphone is designed to receive low frequency sounds only, tapping on the microphone and high pitch sounds may not trigger the unit.

4. Audio Sensitivity Knob - This adjusts the audio sensitivity of the internal microphone (3). Turning the sensitivity knob in the clockwise direction will increase the sensitivity to sound. Turning the knob in the counter clockwise direction will decrease the fixture’s sensitivity to sound. If the knob is turned completely in the counter-clockwise direction the sound sensitivity function will turn off.

5. Breaker - A 2A built-in safety breaker to reduce the risk of electrical shock or fire and protect the circuitry. In the case of an internal short or power surge.

6. Power Cord - This cord is used to supply main power to the fixture. Be sure the main power matches the required power of your fixture. The rated power requirements are clearly marked on the rear panel of the unit.

7. MINI/C Controller Jack - This jack is for use with the optional MINI/C controller only. This controller is used to control the blackout function. Do not attempt to connect an audio signal to this jack, this will damage the PC board and void your manufactures warranty!

8. Dip Switches - These switches serve two functions. In master-slave mode these switches are used to assign a specific head address. In DMX mode these switches are used to assign a DMX address to the unit. In DMX mode each switch corresponds to a specific value based on binary code. See pages 8-9 for a detailed explanation of DMX binary code.

CAUTION IMPORTANT! When installing this projector, make sure that it is mounted in a manner that prevents the audience from looking directly into the beam, and the beam from striking the audience.

Power Supply: This unit is available only in 120v. Before plugging your unit in be sure the source voltage in your area matches the required voltage for your American DJ® Penta Beam.™

General Operation: This fixture is designed to operate as a stand alone, sound-active unit, or in a Master/Slave configuration. It can also operate via DMX controller. The Penta Beam™ is ready to be plugged in out of the box. There is no power switch, after plugging the unit into a power outlet the lasers will immediately begin to cycle through the many built in patterns (provided dipswitch #10 is in the “ON” position, and there is an ample amount of sound to trigger the unit). The unit comes with several built-in patterns that automatically cycle through when the unit is operating, the patterns be be selected manually, see page 15. If the unit does not turn on after the unit has been plugged in, be sure the breaker has not popped and the unit is properly plugged in to a matching wall outlet. If the problem continues to persist, please contact customer support for further instructions.

Sensitivity Knob: A sound sensitivity knob is located on the rear of the unit. Use this knob to regulate the amount of sound it takes to trigger the unit. Turning the knob in a clockwise direction will increase the units sensitivity to sound, turning the knob in a counterclockwise direction will decrease the units sensitivity. Turning the knob completely to the counter-clockwise direction will turn off the sound-active mode.

Operating Modes:

Universal DMX Control: This mode allows you to use a universal DMX-512 controller such as the American DJ® DMX Operator™ or Show Designer.™

1. To control your fixture in DMX mode, follow the set-up procedures on pages 8-10 as well as the set-up procedures included with your DMX controller.
2. For longer cable runs (more than a 100 feet) use a terminator on

the last fixture.

3. Assign a DMX address to the unit by following the dipswitch chart on page 18.
4. The Penta Beam™ uses six DMX channels. See page 16 for detailed description of the DMX traits. Use your DMX controller to activate the various built-in patterns.
5. All dipswitches should be set to the “OFF” position.
6. For help operating in DMX mode consult the manual included with your DMX controller.

NOTE: If running in Master/Slave configuration while using a DMX controller, the Master unit should have all dipswitches set to the “OFF” position. All slave units should have dipswitch #1 set to the “ON” position.

Stand-Alone Operation (Sound Active): This mode allows a single unit to run to the beat of the music. Only use this mode when running a single unit, or when running several units as individuals.

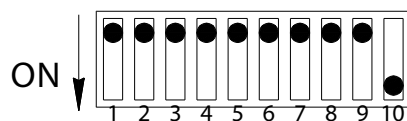
1. Set dipswitch #10 to the “ON” position to activate Stand-Alone.
2. The unit will react to the low frequencies of music via the internal microphone.
3. Use the audio sensitivity knob on the side of the unit to make the unit more or less sensitive to sound. Turning the sensitivity knob in the clockwise direction will increase the sensitivity, turning the knob in the counter-clockwise direction will decrease the fixture’s sensitivity to sound.
4. The optional *MINI/C Controller* may be used with this mode to control a blackout function.

Master-Slave Operation (Sound Active): This mode will allow you to link up to 16 units together and operate without a controller. In Master-Slave mode, the units will react to sound. In Master-Slave operation one unit will act as the controlling unit and the others will react to the controlling units programs. Any unit can act as a Master or as a Slave.

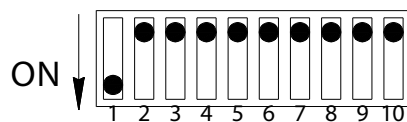
1. Using standard XLR microphone cables, daisy chain your units together via the XLR connector on the rear of the units. Remember the Male XLR connector is the input and the Female XLR connector is the output. For longer cable runs we suggest a terminator at the last fixture.

2. Choose a unit to function as the Master and set dipswitch #10 to the "ON" position. This unit must be the first unit in line. Then simply daisy chain the units together using XLR cables.
3. Turn dipswitch #1 to the "ON" position on the SLAVE units, and they will react the same as the MASTER.
4. Use the sensitivity knob on the back of the master unit to make it more or less sensitive to sound.
5. The optional *MINI/C Controller* may be used to control a black-out function.

Master/Slave Chart










MASTER



SLAVE

Penta Beam EFFECT CHANNEL POSITIONS

Function	CH1	CH2	CH3	CH4	CH5	CH6
255	255	255	255	255	255	255
238-254	Picture15-	Picture15-	Picture15-	Picture15-	Picture15-	Picture15-
221-237	Picture14	Picture14	Picture14	Picture14	Picture14	Picture14
204-220	Picture13	Picture13	Picture13	Picture13	Picture13	Picture13
187-203	Picture12	Picture12	Picture12	Picture12	Picture12	Picture12
170-186	Picture11	Picture11	Picture11	Picture11	Picture11	Picture11
153-169	Picture10	Picture10	Picture10	Picture10	Picture10	Picture10
136-152	Picture9	Picture9	Picture9	Picture9	Picture9	Picture9
119-135	Picture8	Picture8	Picture8	Picture8	Picture8	Picture8
102-118	Picture7	Picture7	Picture7	Picture7	Picture7	Picture7
85-101	Picture5	Picture5	Picture5	Picture5	Picture5	Picture5
68-84	Picture4	Picture4	Picture4	Picture4	Picture4	Picture4
51-67	Picture3	Picture3	Picture3	Picture3	Picture3	Picture3
34-50	Picture2	Picture2	Picture2	Picture2	Picture2	Picture2
17-33	Picture1	Picture1	Picture1	Picture1	Picture1	Picture1
00-16	CH2-CH6	Point	Point	Point	Point	Point
00	CH2-CH6	Black-00	Black-00	Black-00	Black-00	Black-00

	Dp1	Dp2	Dp3	Dp4	Dp5	Dp6	Dp7	Dp8	Dp9	Dp10	Function
1:ON 0:OFF -DONT CARRY	0	0	0	-	-	-	-	-	-	1	Sound Active
	1	0	0	-	-	-	-	-	-	1	
	0	1	0	-	-	-	-	-	-	1	
	1	1	0	-	-	-	-	-	-	1	
	0	0	1	-	-	-	-	-	-	1	
	1	0	1	-	-	-	-	-	-	1	
	0	1	1	-	-	-	-	-	-	1	
	1	1	1	-	-	-	-	-	-	1	

This chart list the DMX dipswitch setting for DMX address 1 through 511. Follow the instructions below to configure fixture dipswitches with your desired DMX address.

DMX Address Quick Reference Chart

DIP SWITCHES					Dip Switch Position															
DMX DIP Switch Settings X = OFF O = ON					#9	X	X	X	X	X	X	X	O	O	O	O	O	O	O	O
					#8	X	X	X	X	O	O	O	X	X	X	X	O	O	O	O
					#7	X	X	O	O	X	X	O	O	X	X	O	O	X	X	O
					#6	X	O	X	O	X	O	X	O	X	O	X	O	X	O	X
					#5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
					#4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
					#3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
					#2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
					#1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
						3	64	96	128	160	192	224	256	288	320	352	384	416	448	480
						1	33	65	97	129	161	193	225	257	289	321	353	385	417	449
						2	34	66	98	130	162	194	226	258	290	322	354	386	418	450
						3	35	67	99	131	163	195	227	259	291	323	355	387	419	451
						4	36	68	100	132	164	196	228	260	292	324	356	388	420	452
						5	37	69	101	133	165	197	229	261	293	325	357	389	421	453
						6	38	70	102	134	166	198	230	262	294	326	358	390	422	454
						7	39	71	103	135	167	199	231	263	295	327	359	391	423	455
						8	40	72	104	136	168	200	232	264	296	328	360	392	424	456
						9	41	73	105	137	169	201	233	265	297	329	361	393	425	457
						10	42	74	106	138	170	202	234	266	298	330	362	394	426	458
						11	43	75	107	139	171	203	235	267	299	331	363	395	427	459
						12	44	76	108	140	172	204	236	268	300	332	364	396	428	460
						13	45	77	109	141	173	205	237	269	301	333	365	397	429	461
						14	46	78	110	142	174	206	238	270	302	334	366	398	430	462
						15	47	79	111	143	175	207	239	271	303	335	367	399	431	463
						16	48	80	112	144	176	208	240	272	304	336	368	400	432	464
						17	49	81	113	145	177	209	241	273	305	337	369	401	433	465
						18	50	82	114	146	178	210	242	274	306	338	370	402	434	466
						19	51	83	115	147	179	211	243	275	307	339	371	403	435	467
						20	52	84	116	148	180	212	244	276	308	340	372	404	436	468
						21	53	85	117	149	181	213	245	277	309	341	373	405	437	469
						22	54	86	118	150	182	214	246	278	310	342	374	406	438	470
						23	55	87	119	151	183	215	247	279	311	343	375	407	439	471
						24	56	88	120	152	184	216	248	280	312	344	376	408	440	472
						25	57	89	121	153	185	217	249	281	313	345	377	409	441	473
						26	58	90	122	154	186	218	250	282	314	346	378	410	442	474
						27	59	91	123	155	187	219	251	283	315	347	379	411	443	475
						28	60	92	124	156	188	220	252	284	316	348	380	412	444	476
						29	61	93	125	157	189	221	253	285	317	349	381	413	445	477
						30	62	94	126	158	190	222	254	286	318	350	382	414	446	478
						31	63	95	127	159	191	223	255	287	319	351	383	415	447	479

The center numbers of this chart (1-511) represent a DMX address. The "X"'s and "O"'s along the top and side of the chart represent dip switch position ("X" for off and "O" for on). Find your desired DMX address from the center chart. Identify the position for dip switches 1-5 from the chart on the left and dip switches 6-9 from the chart on the top. Adjust the dip switches on your fixture to match the position settings of the chart. For fixtures with 10 dip switches; dip switch 10 is reserved for special functions.

This unit is equipped with a built-in safety breaker. This breaker is designed to close the power circuit in the event of an internal short or power surge. This will reduce the risk of electrical shock or fire and protect the circuitry. To reset the breaker, push the breaker button in until you hear it “pop” back in to place. If the breaker continues to pop, stop using the unit and contact our customer support team, the unit may need to be returned for service.

Fixture Cleaning: Due to fog residue, smoke, and dust cleaning the external lenses should be carried out periodically to optimize light output.

1. Use normal glass cleaner and a soft cloth to wipe down the outside casing.
2. Clean the external optics with glass cleaner and a soft cloth every 20 days.
3. Always be sure to dry all parts completely before plugging the unit back in.

Cleaning frequency depends on the environment in which the fixture operates (i.e. smoke, fog residue, dust, dew). In heavy use we recommend cleaning on a monthly basis. Periodic cleaning will ensure longevity, and crisp beam output.

MANUFACTURER'S LIMITED WARRANTY

A. American DJ, Inc. hereby warrants, to the original purchaser, American DJ and American Audio products to be free of manufacturing defects in material and workmanship for a prescribed period from the date of purchase (see specific warranty period on reverse). This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.

B. For warranty service you must obtain a Return Authorization number (RA#) before sending back the product. Contact American DJ, Inc. Service Department at 800-322-6337. Send the product only to the American DJ, Inc. factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, American DJ, Inc. will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package. No accessories should be shipped with the product. If any accessories are shipped with the product, American DJ, Inc. shall have no liability whatsoever for loss of or damage to any such accessories, nor for the safe return thereof.

C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which American DJ, Inc. concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the American DJ, Inc. factory unless prior written authorization was issued to purchaser by American DJ, Inc.; if the product is damaged because not properly maintained as set forth in the instruction manual.

D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up. During the period specified above, American DJ, Inc. will replace defective parts at its expense with new or refurbished parts, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of American DJ, Inc. under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of American DJ. All products covered by this warranty were manufactured after January 1, 1990, and bear identifying marks to that effect.

E. American DJ, Inc. reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by American DJ, Inc. in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired. The consumer's and/or Dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall American DJ, Inc. be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.

This warranty is the only written warranty applicable to American DJ and American Audio Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

MANUFACTURER'S LIMITED WARRANTY PERIODS:

- All American Audio Products = 1-year (365 day) Limited Warranty (except V-Plus Series Amplifiers)
- All American Audio V-Plus Series Amplifiers = 3-year (1095 day) Limited Warranty
- American DJ Lighting and American DJ Branded Products = 1-year (365 day) Limited Warranty (Such as: Special Effect Lighting, Intelligent Lighting, UV lighting, Strobos, Fog Machines, Bubble Machines, Mirror Balls, Par Cans, Trussing, Lighting Stands etc. excluding Laser Products, lamps, and Star Tec Series)
- American DJ Laser Products and Star Tec Products = 90-Day Limited Warranty
- American DJ L.E.D. Products = 3-year (1095 day) Limited Warranty (excluding motors which have a 1-year (365 day) Limited Warranty)

Model: Penta Beam™

Voltage:	120v~60Hz
Laser:	4.9mW Red
Breaker:	2A
Dimensions:	8.75" (L) x 17.25" (W) x 6.0" (D)
Weight:	7 Lbs./ 3.2 Kgs.
Duty Cycle:	None
Warranty:	90 days

Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.